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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,702	03/04/2004	Simon B. L. Watterton	WATTERTON1	5121
1444	7590	07/28/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			MILLS, DANIEL J	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/791,702	<b>Applicant(s)</b> WATTERTON ET AL.	
	<b>Examiner</b> Daniel J. Mills	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Specification***

The abstract of the disclosure is objected to because a figure reference is improper, and "glue)." on the last line of the abstract should be --glue--. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: the specification cannot incorporate by reference the content of claims, as the specification is not a living document, (page 1 lines 23-24, page 2 lines 28-29). Several words are misspelled: "kevelar" on page 8 line 14 should be changed to --KEVLAR--; "polyurethan" should be changed to --polyurethane--.

Appropriate correction is required.

The use of the trademark KEVLAR has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Drawings***

The drawings are objected to because Improper crosshatching is used in both figures and figures may not employ shading as in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should

Art Unit: 3679

include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 4 is objected to because of the following informalities: "one of" should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

As to claims 2 and 12, the phrase "preferably in form", "preferably are", "preferably one of" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05.

As to claims 2, 5, 6, and 11, the phrase " and/or " renders the claim indefinite because it is unclear what subject matter the applicant regards as the invention. See MPEP § 2173.05.

As to claims 3 and 4, the phrase "one or more" renders the claim indefinite because it is unclear what subject matter the applicant regards as the invention. See MPEP § 2173.05.

Claim 11 contains the trademark/trade name "Kevlar". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an aramid fiber.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3679

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Robertson et al. (Robertson) (US 5,361,494).

As to claim 1, Robertson discloses a wheelchair frame member comprising a first arm (the combination of 302, 304, and 106) with a first cross section, a second arm (308) with a second cross section, and a knee-shaped composite element (104), wherein said first arm is connected to said second arm via the knee-shaped composite element, a solid connection between the first arm and the knee-shaped composite element and a solid connection between the second arm and the knee-shaped composite element being formed by mounting glue (Robertson discloses the use of an adhesive), and wherein the knee-shaped composite element provides for a change in cross section (figure 2 shows that the end of 104 mating with 302 to be of a larger cross section than the end mating with 308).

As to claim 2, Robertson discloses a wheelchair frame member wherein the first arm (the combination of 302, 304, and 106) and the second arm (308) have hollow end areas, in the form of a tube, wherein the tubes are thin-walled tubes (figure 4 shows both 302 and 308 to be hollow at the ends mating with 104 and the section of each is a thin-walled tube).

As to claim 3, Robertson discloses a wheelchair frame member wherein the first cross section (of 302) is chosen to allow the following units to be attached to or to be

Art Unit: 3679

connected with the first tube, a wheelchair seat element, a wheelchair backrest (the combination of 302, 304, and 106 is used to mount both the seat element and backrest).

As to claim 4, Robertson discloses a wheelchair frame member wherein the second cross section (of 308) is chosen to allow the following units to be attached to or to be connected with the second tube, a foot rest, lever, or bar (308 is shown connected to the foot rest 220 in figure 1).

As to claim 5, Robertson discloses a wheelchair frame member wherein the first arm and the second arm comprise aluminum, titanium, or magnesium (column 7 lines 39-41).

As to claim 6, Robertson discloses a wheelchair frame member wherein the first arm and second arm are metal tubes (component 106 of the first arm and 308 are tubes). Robertson fails to disclose the method by which the metal tubes are formed. However, it is well-settled by case law that patentability of a product-by-process claim is based on the product and not the recited process steps, irrespective of only process steps being recited.

As to claim 8, Robertson discloses a wheelchair frame member wherein the mounting glue is situated in an area between the end portions of the knee-shaped composite element and of the first and second arm, respectively (column 7 lines 27-30).

As to claim 11, Robertson discloses a wheelchair frame member wherein the knee-shaped composite element comprises reinforcing carbon fibers and/or aramid fibers (column 9 lines 24-29).

As to claim 12, Robertson discloses a wheelchair frame member wherein one of the arms (308) is essentially upright and the other of the arms (the combination of 302, 304, and 106) is essentially horizontal.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson as applied to claim 1-6, 8, 11, and 12, above, and in further view of Isaac et al. (Isaac) (US 5,613,794).

As to claim 7, Robertson discloses a wheelchair frame member wherein the first arm (the combination of 302, 304, and 106) and second arm (308) are joined to the knee-shaped composite element in a way that provides an overlap between the respective arm and end areas of the knee-shaped composite element. Robertson fails to disclose that the knee-shaped composite element is at one end partially situated inside the first arm and at the other end partially situated inside the second arm.

Isaac teaches the use of an adhesive joint between a composite tube (figure 7 223) and a metal tube (224) wherein the tubes are joined in such a way that the composite tube is partially situated inside (228) the metal tube and there is a recess or a cavity (231) for the purpose of insuring a strong adhesive joint. Accordingly, it would



Art Unit: 3679

have been obvious to one of ordinary skill in the tube joining art at the time of applicant's invention to modify the knee-shaped composite element of Robertson to include composite to metal tube joints as taught by Isaac for the purpose of insuring strong joints.

As to claim 9, Robertson in view of Isaac discloses a wheelchair frame member wherein the end portions of the knee-shaped composite element comprise a recess or a cavity (231) in which the mounting glue is mainly situated.

As to claim 10, Robertson in view of Isaac discloses a wheelchair frame member wherein the end portions of the knee-shaped composite element comprise a recess or a cavity (231) in which the mounting glue is mainly situated.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Delafield (US 3,883,257), Richard (US 4,389,057), Murphy (US 4,643,446), Trimble (US 4,850,607 and US 5,158,733), Sims (US 5,152,543), Diestel (US 5,168,889), Martin (US 5,445,400), Wu (US 5,516,226 and US 5,722,676), Grewe (US 5,938,365), Kunishige (US 6,264,225), Robertson (US 5,409,247) are cited for pertaining to either the adhesive joining of composite-metal tubing, or wheelchair frame design.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Mills whose telephone number is 571-272-8115. The examiner can normally be reached on M-F 8:30-5:00.

Art Unit: 3679

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJM  
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7/14/2005



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